Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-4 and 6-29 are now in the application. Claims 1 and 7 have been amended. Claim 5 was previously cancelled. Claims 28 and 29 are being added. Support for claim 28 can be found on page 13, lines 19-26 of the specification. Support for claim 29 can be found on page 16, lines 17-22 of the specification. No new matter has been added.

In item 3 on page 2 of the above-identified Office action, claims 1-4, 6, and 8-27 have been rejected as failing to comply with the written description requirement under 35 U.S.C. § 112.

More specifically, the Examiner alleges that the disclosure does not include any thermal stress of 1090 °C. It is respectfully noted that the Examiner is in error. Particularly, on page 9, lines 7-9 of the specification discloses that the tensile stress produced by the contraction limiter is effective in a temperature range of from -40° C to 1050° C. The difference between 1050° C and 40° C is 1090° C. Therefore, the disclosure does provide for a thermal stress of

1090° C. Accordingly, it is respectfully noted that the Examiner's allegation with respect to the thermal stress, is in error. Nevertheless, claim 1 has been amended to recite a range of 600° C to 1050° C, as disclosed on page 9, lines 16-17 of the specification.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, first paragraph. Should the Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved.

In item 5 on page 3 of the Office action, claims 1-4, 6, and 8-27 have been rejected as being fully anticipated by Ota et al. (U.S. Patent No. 5,486,338) (hereinafter "Ota") under 35 U.S.C. § 102.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes is found on page 3, line 6 and page 9, lines 16-17 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% after repeated thermal alternating stresses in the range between 600˚C and 1050˚C.

Ota discloses a honeycomb body having a case (2) and a honeycomb (3), the honeycomb (3) is attached to the case (2) by a cushion member (5) disposed in a circumferential space between the case (2) and the honeycomb (3). Ota discloses that the purpose of the cushion member is to provide a flexible connection between the case (2) and the honeycomb (3) in a radial direction to **absorb** stresses (column 2, lines 44 to 49 and column 7, lines 1 to 5). Ota does not disclose to impart stresses to the honeycomb, as required in the claims of the instant application. Ota explicitly discloses to provide a cushion member such "that thermal **expansion and contraction** of the honeycomb 3 is **not constrained by the case 2** but is absorbed by the cushion member 5" (column 4, lines 26 to 29). Therefore, Ota discloses the complete opposite of the present invention, because the at least one contraction limiter of the present invention is configured for **imparting an outwardly**

directed tensile stress for **preventing** the average initial **diameter** of the matrix from **decreasing by more than 5 %** after repeated thermal alternating stresses (in other words constraining the contraction/expansion of the matrix with the contraction limiter).

The reference does not show at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% after repeated thermal alternating stresses in the range between 600°C and 1050°C, as recited in claim 1 of the instant application. Ota discloses a cushion member which allows the honeycomb to contract and expand due to thermal stresses. Ota does not disclose a contraction limiter for imparting an outwardly directed tensile stress in the honeycomb to prevent a change in diameter of the matrix. This is contrary to the present invention as claimed, which recites that at least one contraction limiter is configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% after repeated thermal alternating stresses in the range between 600°C and 1050°C.

Since claim 1 is allowable over Ota, dependent claims 2-4, 6, and 8-27 are allowable over Ota as well.

Moreover, Ota explicitly discloses that the cushion member is provided such that the thermal expansion and contraction of the honeycomb (3) is **not constrained by the case** (2). Therefore, Ota explicitly teaches away from the contraction limiter of the present invention as claimed. Accordingly, a person of ordinary skill in the art would not modify the Ota reference to include a contraction limiter, as required in the present invention as claimed.

In item 6 on page 6 of the Office action, claim 7 has been rejected as being fully anticipated by Maus et al. (U.S. Patent No. 5,916,530) (hereinafter "Maus") under 35 U.S.C. § 102.

Claim 7 has been amended so as to be dependent on claim 1 again. Maus does not make up for the above-noted deficiencies of Ota. Since claim 1 is allowable, dependent claim 7 is allowable as well.

Even though claim 7 is allowable, the following further remarks pertain to the Maus reference.

It is noted that the corporate assignee of the Maus reference is also the assignee of the instant application and Mr. Maus is also the applicant of the instant application. Therefore, applicant is extremely familiar with the Maus reference.

Maus discloses that a certain amount of time is required until a cold catalytic reactor reaches its working temperature due to the hot exhaust gases coming from an internal combustion engine. In order to improve the heating behavior, Maus discloses to provide a thermal insulation from the gas inlet side onwards over at least a part of its length with respect to the casing. The insulation prevents the casing from drawing heat from the front area of the honeycomb body directly after cold starting and consequently delaying the catalytic conversion. If exhaust gas is fed to the catalytic reactor over a certain period of time, the casing is also heated up either through the thermal insulation or by some parts of the honeycomb body that are not thermally insulated with respect to the casing. The casing then acts as a heat store or accumulator. If hot exhaust gas is no longer fed to the reactor, the casing retains the stored heat or mainly releases it to the honeycomb body as the external insulation of the casing limits the heat loss to the outside.

On page 6 of the Office action the Examiner referred to Fig. 3 of Maus. In Fig. 3, Maus discloses that there is a honeycomb body (2), which is joined to the casing (1) through the use of a connecting tube (11). The connecting tube (11) is divided into three sub-regions, namely a first sub-region (11a) adjacent the inner surface (6) of the casing (1), a second sub-region (11b) tapering conically towards the inside, and a third sub-region (11c) adjacent the honeycomb body (2). The gaps (13, 14) act as thermal insulation and thus thermally decouple the casing (1) from the honeycomb body (2). Maus discloses that when the connecting tube (11) is made sufficiently thick, for example with a thickness of 0.5 to 2 mm, it acts as a casing itself, which is insulated in the front sub-region (11c) from the honeycomb body (2) and is adjacent the honeycomb body (2) in the rear sub-region (11a), which is advantageous for the initiation and hot-starting behavior of the catalytic reactor (column 5, lines 9-31). Therefore, Maus does not disclose to consider the barreling effect of honeycomb body. Additionally, because the gaps are very wide, the connecting tube (11) does not limit the expansion or contraction behavior of the honeycomb body. Accordingly, Maus does not disclose a contraction limiter as required in the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-4 and 6-29 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

The fee for two additional dependent claims in the amount of $104 is included herewith.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,

/Alfred K. Dassler/

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AKD:sa

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